

# Gözde Sultan Demirer

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## EDUCATION

- UC Berkeley, Chemical and Biomolecular Engineering, Berkeley** **2015-present**  
PhD candidate, Landry Lab
- Koç University, B.S. Chemical and Biological Engineering, Istanbul** **2010-2015**  
100% scholarship, GPA 4.10/4.30  
*Ranked first in graduating class*
- University of Pennsylvania, Chemical and Biomolecular Engineering, Philadelphia** **Spring 2014**  
Study abroad program, GPA 3.50/4.00
- Stanford University, Summer International Honors Program, Palo Alto** **Summer 2013**  
100% scholarship, GPA 4.00/4.00

## AWARDS

- Schlumberger Foundation, Faculty for the Future Fellow **2015-present**

## PUBLICATIONS

- **Demirer, G.S.**, Chang R., Zhang H., Chio L., Landry, M.P. Nanoparticle-Guided Biomolecule Delivery for Transgene Expression and Gene Silencing in Mature Plants, submitted to *Nature Communications* (2017).
- **Demirer, G.S.**, Landry, M.P. Delivering Genes to Plants. *AIChE SBE* (2017).
- Del Bonis-O'Donnell, Jackson T., Beyene, A. G., Chio, L., **Demirer, G. S.**, Yang, D., Landry, M.P. Engineering Molecular Recognition with Bio-mimetic Polymers on Single Walled Carbon Nanotubes. *JOVE* (2017).
- **Demirer, G.S.**, Beyene, A.G., and Landry, M.P. Nanoparticle-templated molecular recognition platforms for detection of biological analytes. *Curr. Protoc. Chem. Biol.* 8:197-223 (2016).
- **Demirer, G.S.**, Okur, A.C., and Kizilel S.S. Synthesis and Design of Biologically Inspired Biocompatible Iron Oxide Nanoparticles for Biomedical Applications. *Journal of Materials Chemistry B, INVITED* (2015).
- Nazli C., **Demirer G.S.**, Yar Y., Acar H.Y., Kizilel S.S. Targeted Delivery of Doxorubicin into Tumor Cells via MMP-sensitive PEG Hydrogel Coated Magnetic Iron Oxide Nanoparticles (MIONPs), *Colloids and Surfaces B: Biointerfaces*, (2014).

## PATENTS

- **Demirer, G.S.**, Landry, M.P. Mature Plant Transfection Using Carbon Nanotubes. *Patent submitted* (2017).

## PRESENTATIONS

- **Gozde S Demirer** and Markita P Landry, Carbon Nanotube-Assisted Delivery of Genetic Material into Mature Plants. *AIChE 2017 Annual Meeting, Bionanotechnology Graduate Student Award Session and Bionanotechnology for Gene and Drug Delivery II*, Minneapolis, MN, October 2017.
- **Gozde S Demirer** and Markita P Landry, Carbon Nanotubes as Biomolecular Cargo Transporters in Plants, *SEED 2017, Genetic Engineering Tools*, Vancouver, Canada, June 2017.
- **Gozde S Demirer** and Markita P Landry, Nanoparticles as Biomolecular Cargo Transporters in Plants and Plastids, *ICPSBB 2016, Plant Genome Editing*, Miami, FL, December 2016.
- **Gozde S Demirer** and Markita P Landry, Nanoparticles as Biomolecular Cargo Transporters in Plant Systems *AIChE 2016 Annual Meeting, Nanoscale Science and Engineering*, San Fransisco, CA, November 2016.

## **RESEARCH EXPERIENCE**

- Optical Nanomaterials & Single-Molecule Research Group (Landry Lab), UC Berkeley** **2015-present**
- Carbon nanotube functionalization and characterization
  - Biomolecule loading onto nanomaterials (carbon nanotubes)
  - Biomolecule delivery into plants cells and subcellular locations using nanomaterials
  - Nanomaterial-mediated gene expression and silencing in plant systems
- BIOMICELL Research Laboratory, Koç University, Istanbul** **2011-2015**  
Undergraduate Researcher
- Studied targeted delivery of doxorubicin into tumor cells via MMP-sensitive PEG hydrogel coated magnetic iron oxide nanoparticles
- Organik Kimya San. Ve Tic. A.Ş., Istanbul** **Summer 2014**  
Intern at production management
- Learned flow-sheeting process
  - Conducted mass and energy balance calculations for polystyrene emulsion production
- Ashland Inc. Specialty Chemical Company, Istanbul** **Summer 2013**  
Intern at Pharmaceutical Laboratory
- Conducted powder and tablet analyses
  - Assisted to tablet coating process

## **OUTREACH ACTIVITIES**

- Bay Area Scientists in Schools (BASIS), Volunteer Teacher and Team Leader** **2016-current**
- Teaching hands-on science and engineering classes in Bay Area public elementary schools
- Koç University Education Group (KET), Volunteer Teacher** **2011-2012**
- Tutored and mentored underprivileged middle school children to improve their math and science skills and academic performance in general
- Koç University Community Volunteers Foundation (KU-TOG), Member** **2010-2011**
- Made agreements with bakeries to provide underprivileged people free bread, and controlled the general flow of the project during one year.
  - Gave training to primary school students about environment and recycling. Was in contact with the municipalities to provide recycling bins to the schools.

## **ADDITIONAL EDUCATION**

- Enforex Summer School, Malaga, Spain** **Summer 2012**  
Language school for Spanish
- Mencia de Mendoza High School, Breda, Netherlands** **Fall 2006**

## **SKILLS**

- Languages** English (Fluent), Spanish (Advanced), Turkish (Fluent), German (Beginner)
- Computer** MS Office Programs, MATLAB, Polymath, Aspen, QDAT, Adobe Photoshop and Illustrator
- Interest** Teaching, Traveling, Latin and Spanish Culture, Dancing, Swimming